

• Our Public Lands

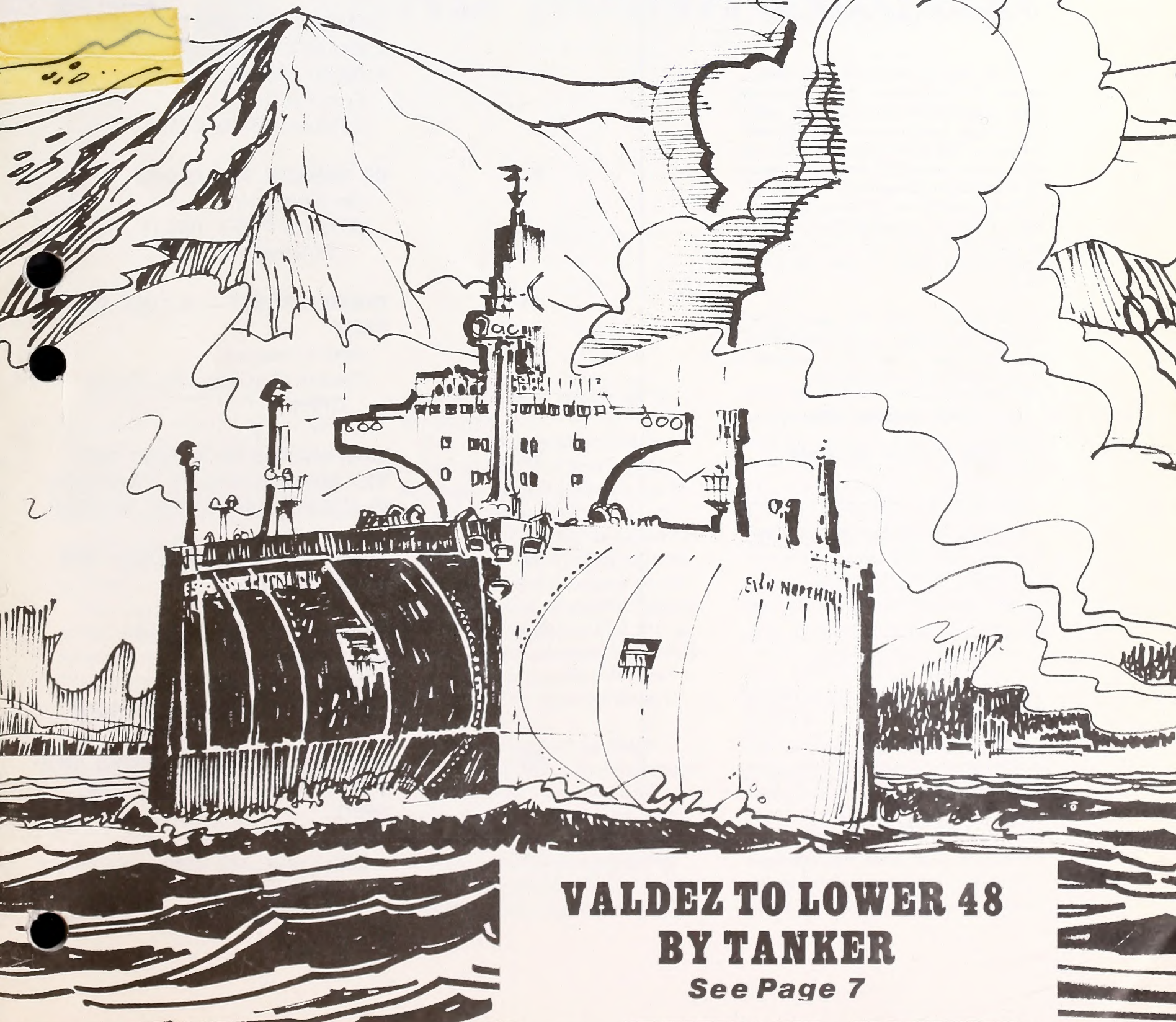
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BATTLE MOUNTAIN
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**VALDEZ TO LOWER 48
BY TANKER**
See Page 7



U.S. DEPARTMENT OF THE
INTERIOR

BUREAU OF LAND MANAGEMENT

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources."

The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States — now and in the future.

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Our Public Lands

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SPACE-AGE DISCOVERIES CONTRIBUTE TO PUBLIC LAND MANAGEMENT

THE Bureau of Land Management is entering the space age through a door at 780 Simms Street in Denver.

Some of the things going on in the low concrete building would surprise people who might regard BLM field employees as straw-chewing cowpokes.

The employees at the Denver address are learning how to bounce radio messages off the tails of meteors. They are beginning work on a system of image retrieval that uses a laser beam.

They are pioneering in development of unmanned weather stations that report automatically from remote BLM lands to a satellite over the equator. Working with NASA, they are devising a way to convert digital satellite data into multi-color maps that

show a variety of resources on the ground.

One of their best accomplishments to date is a device that pinpoints lightning strikes up to 250 miles away. This allows patrolling smoke-jumpers to reach remote fires before they spread.

A great deal more goes on at BLM's Office of Scientific Systems Development, and at first the activities appear unusual for a land managing agency. But the reasons are as down-to-earth as a surveyor's stake.

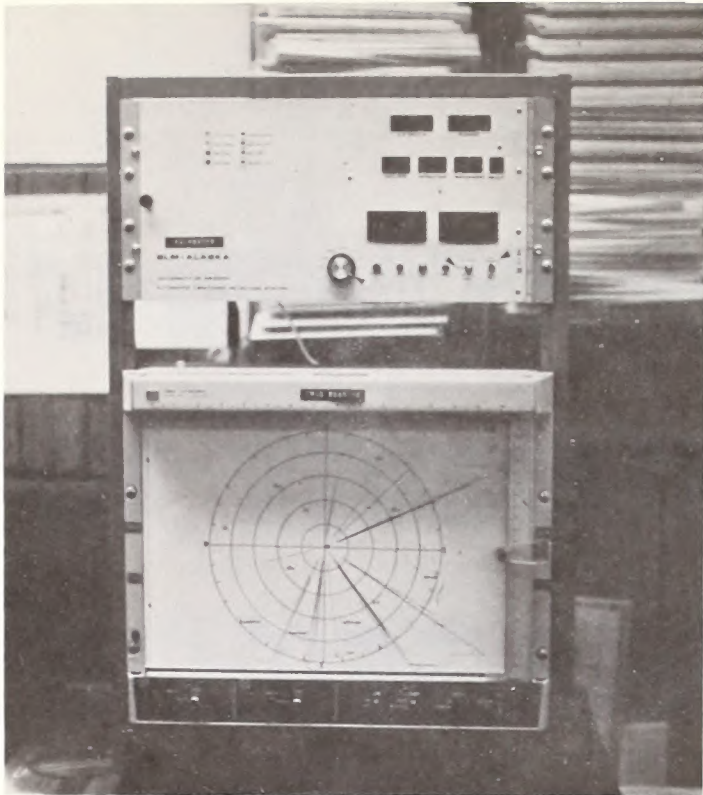
OSSD is directed by Ralph Marker, a 42-year old mechanical engineer who was chief of the Aeronautics Lab at the Air Force Academy 15 years and previously worked at NASA as a research engineer in aerodynamics testing.

Most of the 13 people who

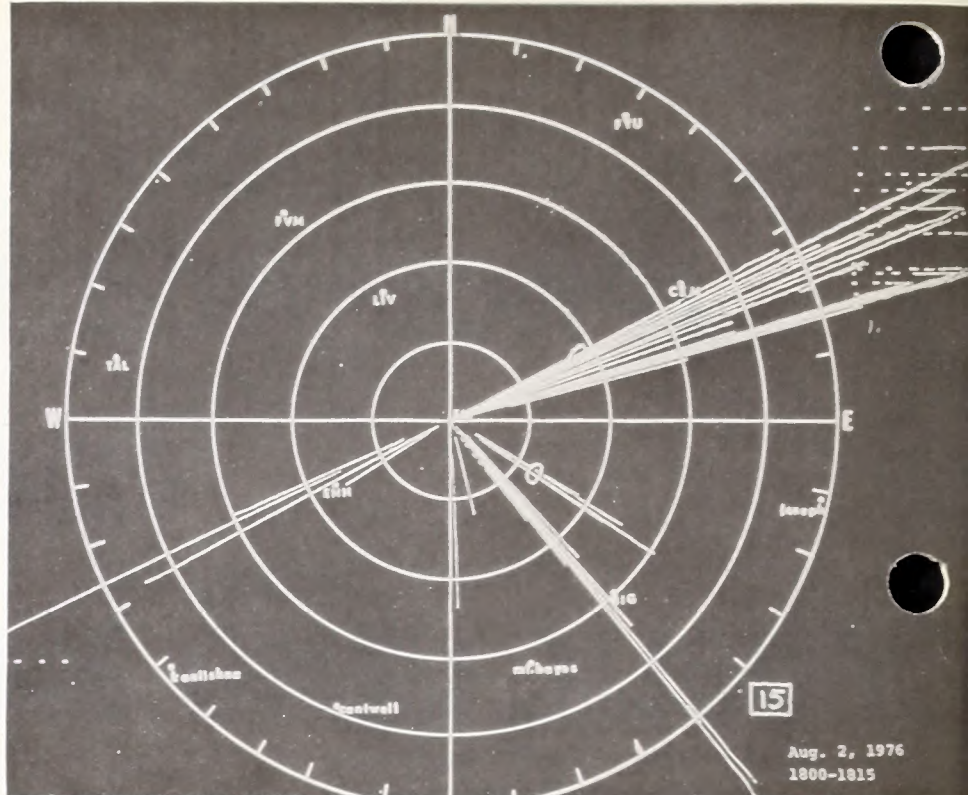
work for OSSD are scientists and engineers. Included are an engineering analyst, electronics engineer, scientific systems designer, physicist, statistician, physical scientists, mechanical engineer, engineering technicians and a remote sensing scientist.

In spite of the heavy concentration of brain power under one roof, Marker said there is nothing "ivory tower" about the operation. That's the last thing he would want other BLM managers to think.

"We deal in *applied* research," he said. "We take existing technology and modify and adapt it to meet practical needs that BLM has in the field. We start out with systems and ideas and equipment we're fairly certain are going to work so there is no waste of time



This instrument was designed in cooperation with the University of Arizona to detect and record cloud-to-ground lightning strikes. This system helps patrolling firefighters locate fires before they spread.



Lightning strikes are recorded on this graph that shows their distance and direction. This graph shows data collected during a 15 minute period on August 2, 1976, near Fairbanks, Alaska.

and money. We take advantage of equipment developed by others and modify it to make it work for us."

OSSD is the only organization of its kind in BLM and it supports the Bureau nationwide. Work projects originate with a request from Washington, or from a State Office; or a project might originate with one of the staff scientists.

The special office was formed in 1974 and assigned to BLM's Denver Service Center. By then it was glaringly obvious the Bureau had to apply the latest technology to meet a rush of demands being made on the public lands.

In a comparative instant the Bureau had its role switched from land disposal to management. Millions of people discovered the leftover lands "nobody wanted." One-fifth of America, long ignored, suddenly was a prime playground. It became increasingly important as a source of minerals and timber. And as energy

shortages developed, BLM land became a vital supplier of fuels.

Marker said his office sometimes meets resistance to change because there is apprehension that advanced equipment will replace people. He said the opposite is true. "Our work actually is providing more field work."

"We try to solve problems our field people have, not problems we think they have," he said. "And when we perfect a system, we train BLM employees how to operate and maintain it. When a system becomes operational, we pull out to work on something else."

Legislation in 1959 to give Alaska statehood and in 1971 to allocate land to Alaska natives laid down the law for BLM, literally. The assignment was to survey 200 million acres by 1986. With conventional methods, it would have taken several hundred years to do the job.

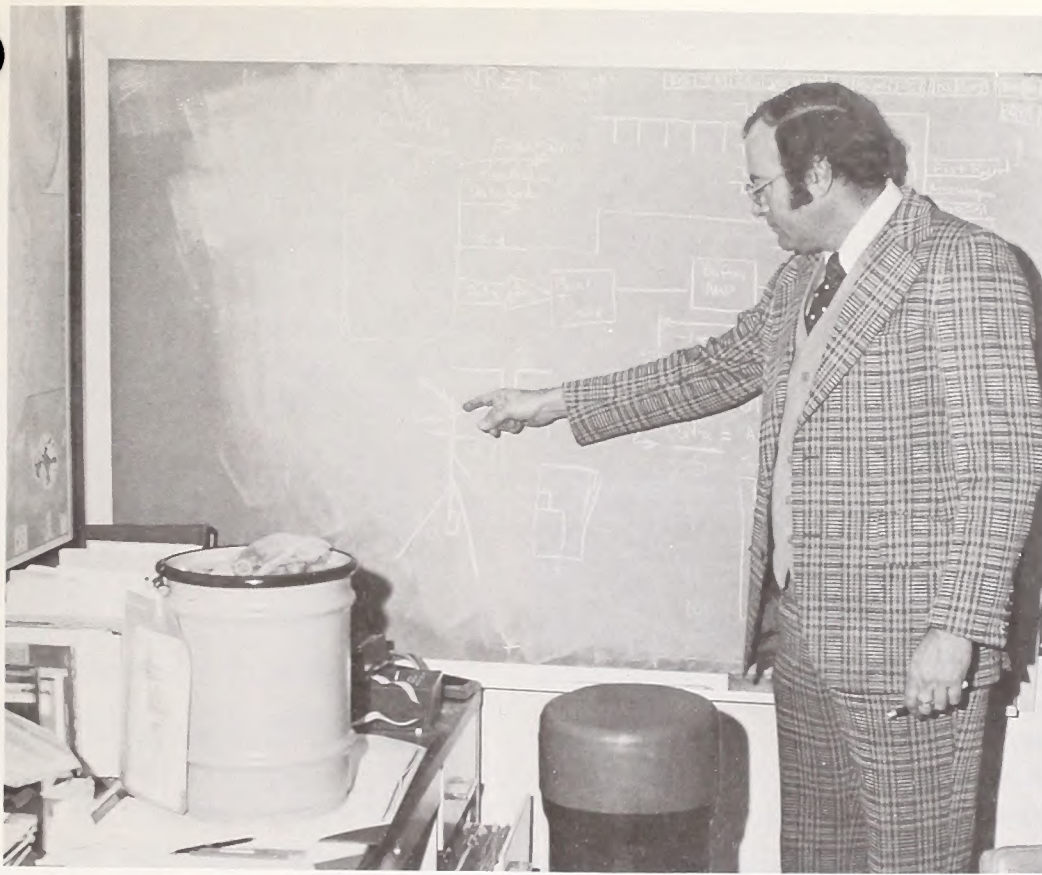
Marker is convinced that two auto-surveyors, mounted in helicopters, will enable BLM to meet

the deadline. And his office is already looking forward to new applications of the system, as well as new lighter, lower cost equipment.

The new applications being studied include photogrammetric control in making maps from aerial photographs and in surveys to help plan locations for roads and pipelines.

It is hoped that by the mid-1980s a man on the ground with a hand-held minicomputer will be able to obtain precise information about his location from a satellite in the NAVSTAR Global Positioning System. The NAVSTAR program, being developed by the Department of Defense, will include 24 satellites which will occupy fixed positions in space relative to the earth's surface. They will continuously broadcast positioning information.

ANOTHER tight deadline facing BLM comes from the Federal Land Policy and Management Act of 1976. The mandate is to complete a comprehensive land allo-



Dale Vance, BLM electronics Engineer, discusses the design of an antenna to be used in collecting data in remote areas of Alaska.

cation plan for the California Desert National Conservation Area.

The Conservation Area covers 25 million acres — one-fourth of California — and within that area BLM must do resource inventories of 16 million acres. Once again, OSSD is expected to play a key role, this time because of the program it has going with NASA and Geological Survey's EROS Data Center at Sioux Falls, S.D.

The formal name of the program is "Wildland Vegetation Resource Inventory — Application Systems Verification and Transfer Project" but it is more commonly known as "ASVT."

The program is OSSD's largest — involving a team of five under Bill Bonner, physicist, and an expenditure of more than \$3 million over a four year period. NASA is providing several hundred thousand dollars in support of the overall program.

The program objective is to use remotely sensed data from satellites, high level photos from

U-2 aircraft, low level aerial photos and selected surface information to make resource maps.

OSSD plans to buy hardware that will convert digital information from magnetic tape into multi-color photos. Each color will represent the dominant reflectant measured in a given area by LANDSAT's sensors. The given area is a "pixel," an area consisting of 1.1 acres.

Once a color is assigned to a resource, such as forest, the occurrence of other pixels of the same color indicates more forest. The indications will be verified by aerial photos and field checks for "ground truthing."

The LANDSAT covers the same area each 18 days, providing information on changes in forests, woodlands and rangeland. The images will allow acreage compilations of various vegetative types and help in making production estimates. They also will assist geological interpretation and might aid in location of minerals.

Some of the other OSSD projects:

LIGHTNING DETECTION SYSTEM — This program, started in Alaska in 1975 to detect cloud-to-ground strikes, used technology developed by the University of Arizona for NASA and the Navy. The initial purpose was to measure effects of lightning on NASA's instruments at Cape Kennedy.

Dale Vance, electronics engineer on the OSSD staff, said the detection device can sense and record the location of lightning strikes up to 250 miles away, even on the other side of a mountain range. The device rejects cloud-to-cloud strike information because the electro-magnetic images are different. If two of the systems are used in different areas to record the same strike they provide a pinpoint location.

Last year six of the systems were installed in Alaska, at a cost of about \$10,000 each. They cover most of the remote fire problem areas. The operation was termed a success, and the system has been extended to the "lower 48."

Current drought conditions have prompted OSSD to develop a Northwest Great Basin System that will cover portions of California, Oregon, Idaho, Nevada and Utah.

Lightning causes an estimated 10,000 fires annually in the United States. The fires usually are detected only after build up of smoke, and suppression is started when the fires are well underway.

The new system, used in combination with radar to spot oncoming storms, will allow dispatch of aerial patrols and plane-loads of smoke jumpers to danger spots — before the fires start.

Future plans call for development of an automatic, unattended, overlapping system that will transmit data to a central processor. There a print-out will show fire managers the precise locations of lightning strikes over a large area.



Ralph Marker of BLM's Office of Scientific Systems shows a radio controlled motion picture camera used to study the feeding habits of nesting birds of prey in Idaho.

DATA COLLECTION PLATFORM — This is another aid to fire management and is being developed to protect lands in the "lower 48" and Alaska. Each "station" or platform consists of a steel can containing instruments to measure barometric pressure, relative humidity, wind speed and direction, temperatures and precipitation. A steel enclosure will protect the instruments from bears.

The station is on a platform with wide foot pads secured by wooden stakes that will prevent transferring heat to permafrost. There is an antenna and transmitting system to send data in 20 second spurts, every three hours, to GOES satellites spinning above the equator 22,000 miles away. The signal then goes to Wallops Island, Va., and is sent on to fire managers in Alaska.

The DCP operates on an aver-

age power of less than five watts. The instruments "sleep" most of the time. They are awakened by a micro-computer to make measurements every hour. Only the clock gets no sleep. The batteries are recharged by solar energy.

Marker said each station weighs less than 200 pounds and is taken to remote sites by helicopter. The two DCPs built so far cost a total of \$23,000 and are considered low cost. He said the National Weather Service has ordered six of the stations.

RAPTOR MONITORING SYSTEM — BLM's Boise, Idaho District has a five-year program to obtain information about the interrelationships of eagles, falcons, hawks and owls in the Snake River Birds of Prey Natural Area.

OSSD is helping to develop data analysis procedures to determine what breeding raptors eat and how much. When this is known, BLM will know better what it needs to do to protect food sources. Mike Garratt, statistician, is the project coordinator.

Commercially available radio-controlled cameras, specially modified by OSSD's systems designer Ken Andresen, are used to record feeding during the nesting season. Each camera is controlled by a hand held transmitter that can be used up to one-half mile away. The camera can be programmed to vary the number of exposures per run and can be slowed to lapse intervals.

OSSD plans to develop more versatile control circuits so the camera can be started when a sensor detects a bird approaching the nest.

GEOLOGICAL SOUNDING — Each year thousands of acres of timber are lost in Oregon because of landslides. Some of the slides are caused by road cuts and timber harvest. Factors involved include percent of grade, water content, decay of roots of harvested trees and depth of soil to bedrock.

An OSSD team led by Bob

Dennen, remote sensing scientist, is working with Stanford Research Institute on a way to measure soil depth using radar and other electromagnetic transmissions. Initial measurements will be made using a ground based system but future systems might include airborne sensors. A backpack sounder is being proposed for development for field crews.

At the suggestion of Dr. Byron Thomas, soil scientist in BLM's Oregon State Office and Ken Braken of the Alaska State Office, the system will be tested in Alaska to learn if it can locate areas of permafrost.

SATELLITE COMMUNICATIONS — BLM is responsible for managing 72 percent of Alaska's 375 million acres. Its field crews need communication for fire detection and suppression, cadastral survey operations and other activities. Complete communications coverage now is impractical because of area size and cost.

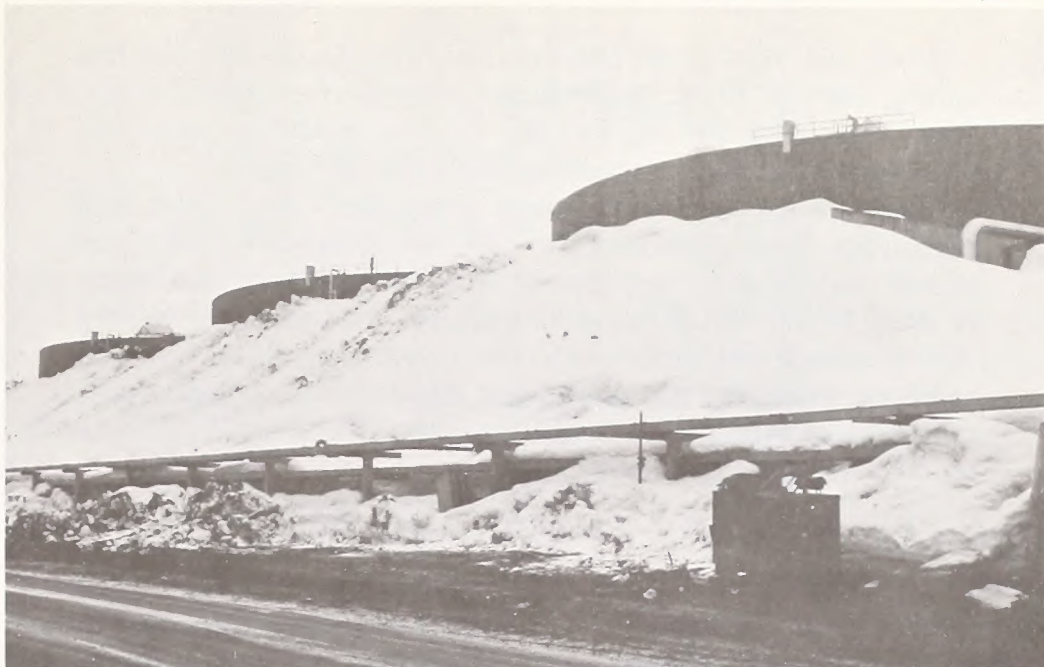
OSSD is assisting the BLM Alaska Communications Group in implementing a Meteor Burst Communications System that utilizes ionized meteor trails.

Vance said the signals would be bounced off ionized trails generated by dust size meteoric particles at the edge of the atmosphere. He said there is so much meteoric activity that there is a 99 percent chance of making a transmission from any station within a 15 minute period. The best time is summer, when Alaska activity, including fires, is at its peak.

HOLOGRAPHIC STORAGE — Andresen, the scientific systems designer, has the lead on this. It involves storing several images, which may be three dimensional, at different angles within a single film plate. A particular image can be retrieved by directing a laser beam at the corresponding angle. A major benefit would be a substantial reduction in storage space.

Now that man has conceived the Trans-Alaska Pipeline and his engineering skill has built it, he expects his technology to master the problems of transporting its oil cargo safely over a 2,200 mile marine route to transfer points in the Lower 48 States.

Interior's Bureau of Land Management has been involved in both the Trans-Alaska Pipeline and in the proposed water and land transportation system to bring Prudhoe Bay crude oil to the U.S. mainland. When the pipeline was first proposed in 1969, Interior produced the Environmental Impact Statement that launched the public participation process in this Federal decision making. In 1974, BLM issued



VALDEZ TO LOWER 48 BY TANKER

permits to cross Federal public land after Congress passed a law increasing the width of rights-of-way.

With the pipeline built and operating, the next problem was transporting the oil to the Lower 48 States. SOHIO Transportation Company, a subsidiary of the Standard Oil Company of Ohio, has proposed a pipeline system from the Port of Long Beach, California, to Midland, Texas. Since such a pipeline would cross Federal public lands, a BLM permit is among some 500 permits SOHIO must get before it can perfect the transfer of its 53.68 percent share of the pipeline oil by water and land to inland locations for refining or into other distribution systems.

The navigational safety of the first leg of that mainland skirting water journey, from the pipeline southern terminus at the ice-free port of Valdez, Alaska, through several inland waterways, was hotly debated last year.

Now, however, a convincing oil tanker demonstration run that bested foul weather, half blurred visibility, and proved an, until then, untried U.S. Coast Guard Vessel Traffic Service seems to have shredded the arguments of all but the hard core skeptics.

At issue was "Middle Rock," misnamed and misplaced, which critics felt would create a vessel traffic hazard in the slender water passage just outside of Valdez Harbor. But, as Coast Guard Lt. Cmdr. Kenneth Thompson point-

ed out in an April press briefing, "Middle Rock" is not in the middle of the mouth of Valdez Harbor, and the passage around it could better have been called the Valdez Deep instead of the Valdez Narrows.

To begin with, Middle Rock lies athwart the Valdez Harbor mouth, two thirds of the way, or 900 yards, from the east shore. This is sufficient space to place three tankers the size of the ARCO Fairbanks (three football fields long, 120 deadweight tons) end to end and shove them through sideways — or 18 tankers side by side in the 900 yard channel width.

The Coast Guard does not believe that Middle Rock should be removed — at a cost estimated by

When the Alaska oil pipeline was due to be opened last spring, the U.S. Coast Guard began a series of navigational systems testing for the marine leg to carry crude oil from the Alaskan port of Valdez south to the Lower 48 States.

After two weeks of preliminary steps, the actual water passage from open waters to the pipeline terminal's docks was tested, and the press was invited on an early trip to write about it. BLM Writer Jim Robinson, who has specialized in writing about energy and particularly that concerning the petroleum industry, made the trip with some 40 reporters, broadcasters, and photographers. This is his account of the event, accompanied by the photographs he took.

the Corps of Engineers at \$18.5 million — and points out that three European superports carry more tonnage in larger dead-weight tonnage merchant vessels through narrower channels: Milfordhaven in Wales with a minimum width 300-yard channel, Finnart in Scotland with a minimum width 375-yard channel, and Europoort at Rotterdam with a minimum width 400-yard channel.

The Coast Guard points out further that in all three European ports there is considerably more vessel congestion than will be permitted under regulations governing use of the Port of Valdez. At Europoort, for example, there may be as many as 10 seagoing vessels in the traffic pattern at one time, while Valdez will be limited to three every 24 hours.

Valdez Harbor is ideally suited to host the oil tankers that will take Prudhoe Bay crude from the Alaska pipeline and carry it south through Prince William Sound's sub-Arctic Pacific waters. Then the marine leg continues down to its first Lower 48 stopping point at Cherry Point, Washington, where an Atlantic-Richfield refinery will eventually handle 100,000 barrels per day.

The Harbor itself is a clear ice-blue fjord, 750 feet deep, with the community of Valdez (6,670 population) on the north shore, hugging a shoreline that rises abruptly to 5,000 foot mountains,

and the pipeline terminal on the south shore nestled against 4,000 foot mountains. The harbor waters are three miles wide and run 10 miles west to the Narrows.

The Narrows are 1,200 yards wide and continue west for 10 miles to the Valdez Arm, a southwesterly trending funnel of water from five to seven miles wide and 14 miles long which terminates at Entrance Point at the beginning of Prince William Sound.

Just eight miles north of the mouth of the Sound lies Columbia Glacier, a tidal glacier, in a nearly landlocked configuration which traces a tortuous path for the icebergs it spawns from its

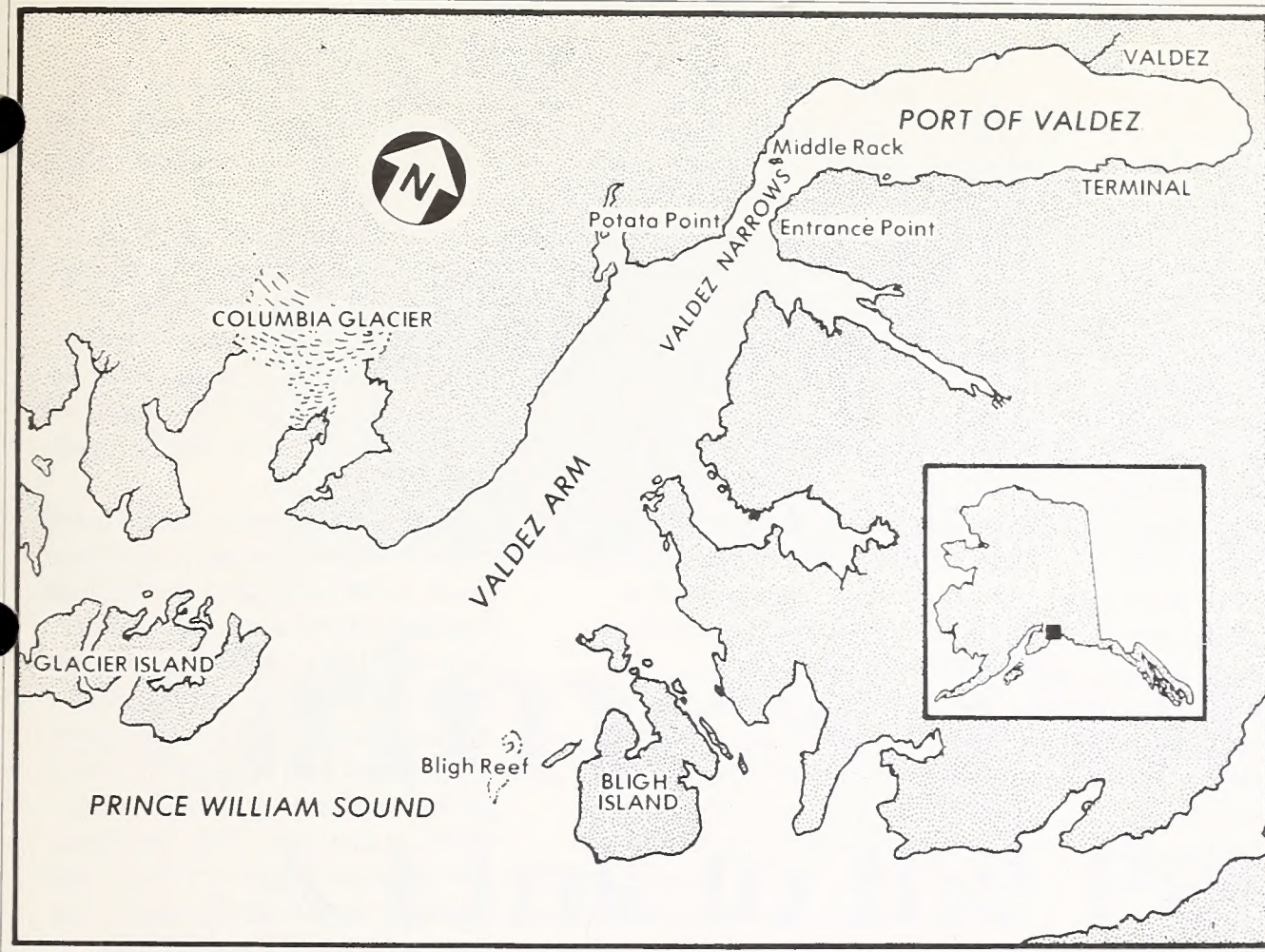
300-foot-high cliffs into the path of tankers.

In the past, a few Columbia Glacier icebergs wouldn't have been a problem; they remained close to the mother body until they melted into smaller, less dangerous chunks. Moreover, there wasn't that much large marine traffic in Valdez Arm. Now, however, signs indicate that the glacier's condition may have changed and that more icebergs may be expected.

Coast Guard officials admit there have been reports of two icebergs of 30 to 40 feet across in Valdez Arm. (By definition, an iceberg is any piece shed from glaciers and having an area of more than 100 square meters — about 4,000 square feet — above water.)

How much peril the icebergs represent isn't precisely known. The U.S. Geological Survey is studying the dynamics of glacier drift. Meanwhile, one solution may be to string a wire catcher system across the mouth of the channel leading from the glacier's face to corral the icebergs until they melt small enough to no longer be a navigational hazard. This technique has been used successfully across narrow fjords





Map showing entrance to Port of Valdez.

Industry provided the captains, 43 of them with a combined total of 1,431 years of experience at sea but not across open water several miles wide.

A few minutes beyond the entrance to the Sound is Bligh Reef where pilots leave the tanker. The tanker master is then on his own to navigate 30 miles south to Cape Hinchinbrook, which is the gateway to the Gulf of Alaska and then the Pacific Ocean. The southward journey skirts the coast to the first mainland port of call, the ARCO Cherry Point Refinery on the shores of Puget Sound in the Strait of Georgia adjacent to the State of Washington.

These then are the navigational hazards facing the tanker coming into Valdez Harbor to load crude oil from the Alaska Pipeline and take it back to the U.S. mainland: weather, visibility, a channel rock barrier, and a glacier. To train tanker captains in dealing with these navigational hazards, and to test the \$7 million Prince William Sound Vessel Traffic System, the tanker trials were conducted in a joint venture by the Coast Guard, State of Alaska, the Alyeska Pipeline Service Company, and the oil industry.

Under the tutelage of Alaskan State certified pilots, the Coast Guard's Vessel Traffic Service — including both navigation and communication systems — was fine-tuned over a month of trials that began early in April.

Half that month was devoted to training ships masters to navigate without pilots, in the Sound from Cape Hinchinbrook to Bligh Reef. The second half concentrated on the Bligh Reef-Valdez leg with Alaskan pilots aboard to familiarize themselves with the features of this southern port, and the press went along on the first trip into Port Valdez.

By Alaska standards, it was probably a good day: visibility only occasionally obscured by periodic sleet or snow, temperature in the mid 30's, relatively calm surface. For reporters it was a good day. The wardroom had plenty of hot coffee and food snacks, and it was warm and dry. For photographers, it was a day of leaden skies and wind whipped spray that wet cameras, particularly lenses; a photographer who ducked into a sheltered area to warm up and wipe a lens dry found the lens fogged on emerging from shelter.

The press had pretty much the

run of the vessel. The engine room, unbelievably clean, was open by guided tour at intervals. The bridge was open except for a small area reserved for captains, pilots, and Coast Guard officers. The empty deck would have accommodated a small army, although few ventured out for long.

Sea lions frolicked in the gray-green waves, while a helicopter laden with still photographers and television cameramen bustled about importantly. Coast Guard cutters and other small craft scampered about on various errands, and the ARCO Fairbanks glided soundlessly through the fjords that lead to Valdez Harbor.

The excited chatter of reporters on a day away from their typewriters hushed as the giant ship approached the exit from the Narrows into Valdez Harbor. Finally someone spotted Middle Rock, the vaunted hazard that might spell doom to oilmen's hopes of a water transit service from Alaska to the U.S. mainland.

A mere 30 feet high, topped by a continually flashing light, it stretches out to 400 yards beneath the surface, but this still leaves a 900 yard channel width for the tankers. At the sight of

Middle Rock, there was general surprise, maybe a little disappointment from the thrill seekers. By seeming consensus, Middle Rock would be played down in the stories they wrote.

Once inside the Harbor, fussy little tugs took over, nudging the tanker ever closer to the loading berths and their vertical hose arms waiting like an umbilical cord to pour crude into the tankers' innards. The ARCO Fairbanks was not fully ballasted and rode high out of the water. But incoming tankers, when it's a for-real situation, will have ballast to be unloaded and processed through the water ballast treatment center (1.2 million barrel capacity each 24 hours) or face a fine and an order to turn around and go back to sea, get water ballast, and then return.

The tanker captains were not completely enthusiastic about the route and the port. Captain Don Voge of Wilmington, Delaware, who will sail for Exxon, pointed out that in Texas ports, for example, mud banks are a problem, but "Here it's like a bathtub. You either make a corner or you don't" because of the steep rock walls.

And Captain Robert Stotts of Tulsa, Oklahoma, also an Exxon skipper, noted that one problem at Port Valdez was the lack of a really good anchorage. "It's the only port I've been in where you have so much water . . . you wish it wasn't quite so much."

But of more concern was where to drop anchor in the Sound where depths plunge in some places to more than 1,500 feet. Anchoring the big tankers may be necessary because while navigation may be practical in high winds, docking at the loading berths is not.

It depends on whose statistics you accept. Some say winds up to 200 miles an hour rip the area constantly. Oil men dispute this figure and claim 75 mph is tops. Wayne Callan, cruise skipper and 15-year resident of Valdez, says the truth is something else.

"I've seen gusts — not winds — just gusts up to 125 mph, and you wouldn't want to be out on the water in that. But there are few days like that . . . any other time, I'm out in it."

However, oil industry spokesmen say tankers will not navigate the Narrows if winds exceed 50 mph. One ARCO Captain, Larry

Reimer, said he wouldn't mind going through the Narrows, "but I wouldn't want to dock the ship in those winds."

General praise for the State of Alaska and the Coast Guard's vessel traffic requirements was expressed. Exxon Captain Marshall Price of Atlanta, Georgia, said he thinks they will be the "prototype of what you'll see in all the ports in the future."

The captains took Coast Guard examinations to qualify as Alaska pilots in the area and memorized features of the entrance to the Port of Valdez. After the first two weeks of learning and passing examinations, the captains spent the second part testing the navigation and communications systems: visual aids, ship and shore based radio, radar, Loran-C, and Omega, then learning about tugging and docking maneuvers.

If the proof of a pudding is in the eating, the industry's part has been to supply the ingredients and season with systems testing and trial runs that meet Coast Guard regulations. At stake are such environmental concerns as air and water quality, plant and animal life and endangered species, the danger of oil spills, socioeconomic impacts — a long list indeed.

The remaining decisions concerning the overland leg from the California mainland to Texas will be made by government groups at State and local levels and by top Federal officials.

Although Prudhoe Bay production is reported to represent only 10 percent of domestic consumption, that amount is equal to almost half of the shortage that created lines at gasoline pumps during the 1973 Arab oil embargo.

The saga that began when wildcatters struck oil on the North Slope of the Brooks Mountain Range in 1968 (9.6 billion barrels of oil, 26 trillion cubic feet of gas estimated) appears to be nearing its close.



One of the loading berths where Prudhoe Bay crude oil is loaded onto tankers in Valdez Harbor. At this point, tankers pump out their ballast water to be cleansed and later returned to the clear waters of the harbor where the tankers side.



Grimes Point

A Link to the Past

At Grimes Point, it all began some 7,000 years ago. The area was then surrounded by a fresh-water lake, and had an ample supply of game for food and plenty of reeds and other materials for clothing and shelter. It was these resources that probably first attracted early man to the area. From that time on, man has continued to leave his mark there, even though the lake, the game, and the reeds have disappeared because of changes in climate and ecology.

Those who lived in the area 6,000 years ago left reed matting, basketry, spearpoints and petroglyphs — rock drawings — on more than 400 scattered basalt boulders. Nearby caves have other evidence of early man's presence. No one has yet deciphered the meaning of the petroglyphs, although many theories about their meaning have been advanced. Some think they had religious significance, others think they were a primitive means of communication.

In modern times, man has left a different kind of evidence of his

presence in the area. During the 1930s, the caves were mined for guano and gravel. Those activities disturbed the clues archaeologists need to understand the cultures of primitive man in America.

Others used the area as a shooting range and dumping ground. These activities have further contributed to the loss of valuable archaeological evidence, as have the activities of looters and van-



Before BLM began its cleanup, spray paint obscured the petroglyphs and litter marred the area.



BLM personnel took school children to Grimes Point for field trips. Their reactions helped BLM design the interpretative trail.



A portion of the interpretative trail as it looks today.



In the summer of 1977 BLM's Youth Conservation Corps constructed the interpretative trail through the area.

dals who have defaced many of the petroglyphs and other artifacts.

Almost three years ago personnel from BLM's Carson City, Nevada District, where the area is located, launched a three-year program to reverse this trend. The program, headed by BLM archaeologist Brian Hatoff and by Tom Abbett, a recreation planner for the District, is now almost complete. BLM has withdrawn the area from mining, built protective fencing and cleaned up trash. Interpretative facilities have been erected and other steps taken to tell the public about the archaeological significance of the area.

"Grimes Point is a nationally significant archaeological site," Hatoff says. "It was occupied for more than 6,000 years dating from about 5,000 B.C. We want to see it get the protection and appreciation it deserves.

"This summer we put in an interpretative trail as one of the last stages of the project. We set aside an area for schools and other groups to study natural and cultural resources. This fall we will develop a guide book, trail

brochure and a slide show to complete the project," Hatoff explained.

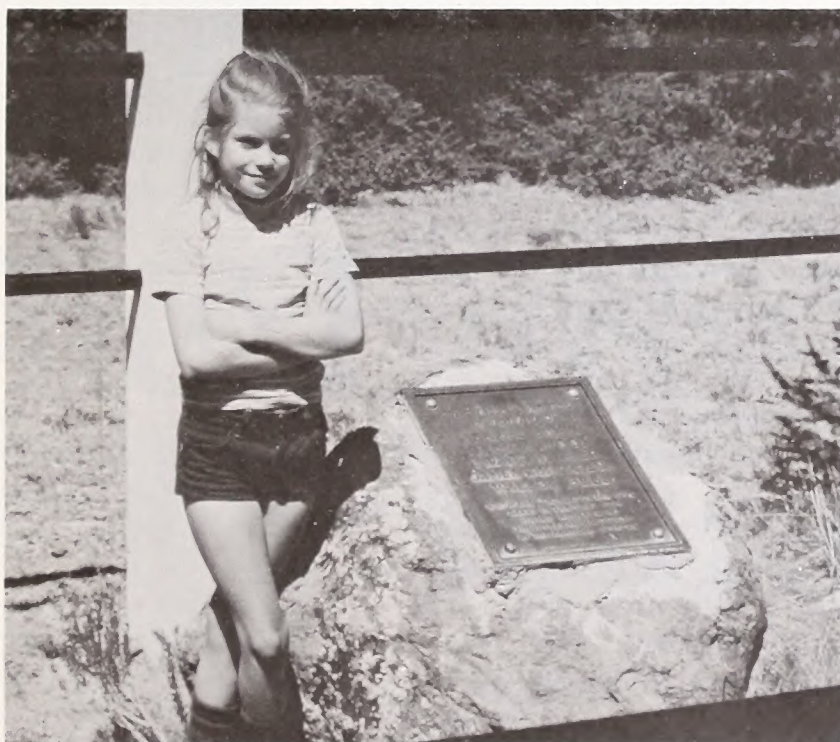
Grimes Point is adjacent to U.S. Highway 50 about 10 miles east of Fallon, Nevada. It is within an hour's drive for almost a quarter million area residents and available to the many tourists crossing the state.

According to Abbett, "Local residents have been very enthusiastic. A National Guard unit helped us remove trash. Our Youth Conservation Corps fenced the area and constructed the interpretative trail.

"To help us design the trail, we took local schoolchildren on field trips to see what features interested them most." Abbett has worked with several teachers in developing the study guide.

With its location, Grimes Point offers an opportunity for people to learn more about our country's cultural heritage. BLM hopes that the interpretative trail and study area will enable visitors to better understand the value and the nonrenewable nature of cultural resources, particularly archaeological sites.

Cannibal Plateau Memorial Plaque



Denna and the Packer Massacre Memorial Plaque.

It was almost ten o'clock on a bright June morning when we stopped at Cannibal Plateau overlooking Colorado's blue Lake San Cristobal. While we were assembling the camera equipment, we saw a twelve-year-old girl running toward us from a camp down below. She was a pretty little thing, filled with the energy and

exuberance of her full one dozen years. As she ran she would occasionally break her stride to skip for a dozen feet or so as she bounded along with the joy one feels on a beautiful morning.

While I focused the camera, she slipped between the bars of the fence that surrounds the stone and its bronze plaque with the assurance of one endowed with authority. Without being asked, she started to tell us the story of Alfred Packer and his five companions. Pointing to each name on the plaque, she filled us in on the background of each victim of the grim episode:

Israel Swan
George Noon
Frank Miller
James Humphreys
Wilson Bell

I was familiar with the story of the so-called Packer massacre, and soon realized that the child had done her homework well. She told us her name was Denna and that she lived in Kansas. Since her family vacationed at Lake San Cristobal each summer, Denna had made the events surrounding the memorial her special concern. Each day she would watch for visitors to stop to view

the memorial. When they did, she would hurry up the hill to retell the story of Alfred Packer and his companions. I thought it was appropriate. Packer was very fond of children.

Pictures of Packer show a dark-visaged man with deep-set fanatical eyes. He seems to have been an epileptic, and there are hints of mental instability in the accounts of his trial.

In November of 1873, he was one in a party of 21 men who set out from Utah to travel to the gold fields of Colorado. It was a bitter winter and deep snows hindered their progress. Soon the party was lost and the men were forced to live off chopped barley brought along as food for the horses.

On January 21, 1874, the party was accosted by a party of Ute Indians under the command of Chief Ouray. Ouray suspected that the men were seeking land on the Indians' reservation, but after examining their equipment, Ouray was satisfied that the men were only prospectors.

Once assured, Ouray became friendly and warned the men about trying to cross the mountains in winter and invited them to be guests of the Indians until spring. The prospects of starvation forced the men to accept, but within a few weeks many in the party had grown restless.

About the first of February, one group left the Ute encampment determined to try to reach the gold fields. Then on February 9, Packer and five companions also set out to try to cross the mountains. Of the five, Israel Swan, somewhere in his sixties, was the oldest man in the party and George Noon, at 16, was the youngest. Packer, who claimed to have prospected in the Colorado mountains, was supposed to be the guide for the party. The six men left the Ute encampment well armed and with what was thought to be enough food to

reach a cattle camp on the Gunnison River. As they left, Ouray advised them to follow the River. It is obvious that the men ignored this advice and soon became lost. The true story of what happened on that journey may never be known. Packer, the only survivor, told conflicting stories, and these discrepancies would later help convict him.

What is indisputable is that Packer's five companions were killed and that only Packer arrived at the Los Pinos Indian Agency the following spring with money and other things that belonged to his companions.

History is nothing more than what gets into the record. The record as established by the physical evidence, Packer's own admissions and the testimony of witnesses about his words and behavior after he arrived at Los Pinos caused a court in Lake City, Colorado, to convict him for the murder of Israel Swan and sentence him to be hanged. For legal reasons, the State decided to try him for only the one victim.

During the trial, Packer denied killing any member of the party except Bell. He testified that he had returned from a hunt to find four of his companions slaughtered in their sleep and that Bell had attacked him. In the fight that followed, he killed Bell in self defense. The other undisputed fact in the case seems to have been that Packer kept himself alive for the rest of the winter by eating the flesh of his dead companions. While Packer was never charged with cannibalism, it seems certain that this bizarre aspect of the case worked against him at his trial and created widespread public interest in the case.

Packer did not hang. His conviction was overturned on a technicality, and in a retrial, held in Gunnison, he was sentenced to forty years for manslaughter. After spending sixteen years in the

Colorado State Prison, he was paroled in 1901.

As so often happens in sensational murder cases, truth gets mixed up with fiction to a point it becomes all but impossible to separate one from the other. A most persistent story growing out of the incident concerns the language used by the trial judge in passing sentence on Packer after the first trial. According to this story the judge turned to Packer and said:

"Stand up, yah voracious man eating son of a bitch, stand up." Then pointing a trembling finger at Packer and in a raging voice, he continued, "They was sivin Dimmincrats in Hindsdale County, and ye et five of them, God dam ye!

"I sintins ye t'be hanged by the neck until ye're dead, dead, dead as a warning ag'in reducin the Dimmicratic population of th' State."

Unfortunately for a good story, this version of the sentence is pure fiction. The judge who presided at Packer's trial was well educated and thoroughly trained in the law. His statement in passing sentence has been preserved and is an eloquent piece of legal prose.

Another fable says that after Packer was paroled, he was hired as a bodyguard by the editors of the Denver Post. At that time the Post was a ripsnorting paper, and it would seem logical that the editors, who had a host of enemies, might need a bodyguard, but so far as we know, they never hired one. The Post was instrumental in getting Packer's parole, but beyond visiting the editorial offices to express his gratitude, there is no further foundation for the story. In truth, Packer went back to his prospecting and died in 1907.

Portrait of Petalesharro, a member of a Pawnee delegation that also visited Washington in 1821. By Charles Bird King. From the Warner Collection.



Before 1800 when a citizen of the United States spoke of "the West," he was speaking of the great green forest that stretched from the Appalachian Mountains to the bank of the Mississippi River. That was the "West" of George Rogers Clark, Daniel Boone and James Robertson, and it dominated American thought for the last quarter of the 18th century. Then the purchase of Louisiana changed our term of reference.

After 1803 "the West" came to mean the land beyond the Mississippi River and more specifically, the Great Plains and beyond. This "West," mystic and real, was what we had in mind when we

send delegations to visit their Great White Father in Washington. Jefferson hoped that such visits would convince the Indians of the friendly intentions of their new rulers and awe them with the power and might of the United States. He hoped that peaceful intercourse and trade would follow.

The first of many Indian delegations arrived in Washington in the summer of 1804. They were graciously received both by government dignitaries and by the general public. At that time, the feeling in the United States toward Indians improved in a direct ratio to the distance one was from the frontier. While Indians might be hated and feared in the West, they were already being idolized in the East as the prototype of Rousseau's primitive man. The delegation was wined and dined, then taken on a tour of the principal eastern cities.

Doubtless the sight of the great cities and theappings of the white man's culture had a great impact on the Indians. What is more certain, and a matter of record, is the impact the Indians made on the East.

As a part of the honor paid to visiting dignitaries, the Government arranged for prominent artists to paint the portrait of each of the visiting chiefs. That was the beginning of the romance between American artists and the American West. Time would prove that it was something more than puppy love.

The colorful costumes of the western Indian, his stately bearing, and his striking physiognomy made him an ideal subject for the artist's brush, while his culture made him the object of the public's curiosity.

The exploration of the West began before the camera was invented. Thus only through the eye of the artist can we see it as it was. Like many who took part in the exploration and develop-

They Painted the West I

The Early Years



Portrait of Hayne Hudjihini (Eagle of Delight) wife of a member of an Oto delegation that visited Washington in 1821. By Charles Bird King. From the Warner Collection of the Gulf States Paper Corporation, Tuscaloosa, Alabama.

started to plan this series of articles on Western Artists.

The painting of the West had a definite beginning in time — 1804. It is not by chance that this date coincides with the year Meriwether Lewis arrived in St. Louis to launch his expedition to the Pacific Coast.

Lewis' responsibilities on this expedition were spelled out in great detail by President Thomas Jefferson. Among other things, he was to make contact with the various tribes of Indians who lived along the Missouri. He was to tell them that they were now subjects of the United States rather than France or Spain. Specifically, he was to encourage the tribes to

ment of the West, the artists knew they were leaving a record for future generations. Almost to a man they saw themselves as chroniclers of a period that soon would pass. That viewpoint had a tremendous influence on their work. Since they painted for the record, they felt obligated to be meticulous about detail — to keep the record straight.

For the most part, the western artist saw his role as an historian taking precedence over his urge to be creative. This faithful rendition of subject matter was also a reflection of the training many of these early artists had received. In the early 1800's, portrait painting was the artist's bread and butter. To set for your portrait was roughly akin to having your picture taken, and every family that could afford it sooner or later had need of a portrait painter. Understandably, those who paid to have their portraits painted placed a high value on a "good likeness." A good likeness was a hallmark of early western art.

John Webber may have been the first European to paint a western scene. While on a voyage with Captain Cook of the British Navy in 1778 he painted scenes showing Indian life around Nootka Sound on the West Coast of British Columbia's Vancouver Island. Webber's role on that voyage is explained by Captain Cook.

"Mr. Webber was pitched upon and engaged to embark with me for the express purpose of supplying the unavoidable imperfections of written accounts by enabling us to preserve, and to bring home, such drawings of the most memorable scenes of our transactions, as could only be executed by a professional and skillful artist."

For some reason no artist traveled with Lewis and Clark. Beyond a few crude drawings, we must depend on the written word to reveal the sights as seen by the members of that party. Fortunately

ly we have a more graphic account concerning the physical appearance of those who visited Washington as delegates of the western Indian tribes.

The portraits we now have of the members of that first and subsequent delegations were painted by prominent portrait painters of the day. It is doubtful that one of them had been west of the Appalachian Mountains. Charles Balthazer Julien Fevret de Saint Memin, who did the portraits of the first delegation, was a French immigrant — an army officer who had been forced to flee France in the wake of the French Revolution. He had started to paint as a means of making a living in the United States.

Charles Wilson Peale was well known as a naturalist as well as an artist. He prepared silhouettes of the profiles of members of the delegation for President Jefferson, but his major contribution to western art lay in his ability to arouse the interest of others in painting the West.

Portraits of members of later delegations were painted by even more distinguished painters. John Neagle was 25 years old and had been painting professionally for only 3 years, but he was well on his way to becoming Philadelphia's most outstanding portrait painter when he painted portraits of the members of the 1821 delegation. Charles Bird King had studied abroad and had moved to Washington to paint the great and near-great when he posed members of that same expedition.

Neagle was the more realistic. King's paintings are ablaze with color. A comparison of pictures of subjects painted by the two show King had a tendency to flatter his subjects — a flaw not wholly at odds with success in painting portraits.

At the time the delegations were visiting Washington, most men recognized that the Indian's culture could not withstand the

onslaught of the white man's civilization. Many of these men believed that the Indian himself would soon be extinct.

In the light of this belief, Thomas McKenny who was head of the Indian Bureau — then a part of the War Department — commissioned Charles Bird King to paint Indian portraits that would eventually become the nucleus of a National Indian Portrait Gallery. That gallery was to contain more than 150 paintings. It was to provide future generations with information about the physical appearance of Indians after the race itself had become extinct.

In the winter of 1818 Charles Wilson Peale hurried to Washington. He had just learned that John C. Calhoun, who was Secretary of War in the Monroe administration, was planning to send an expedition of soldiers to build a fort at the mouth of the Yellowstone River. Behind the soldiers, he planned to send out a smaller party of scientists to explore the Missouri River and its tributaries, the Red River of the North, and that portion of the Mississippi River north of the mouth of the Missouri.

Peale, who long had felt that the omission of an artist on the Lewis and Clark expedition had been a grievous oversight, intended to persuade Calhoun that he must have an artist on the staff of the scientific party. Like Captain Cook, he realized that a competent artist would be invaluable in reporting details of scientific discoveries. Peale wanted to make the trip himself, but he was then 77 years old and knew that such a journey was beyond his physical ability. He was determined to secure such a post for his son, Titian Ramsey Peale, Titian Ramsey was 19 years old at the time. He had been a poor student in school, but had a passionate interest in art and Natural History. He had been elected to the Academy of Natural Science

in Philadelphia when he was 18.

The elder Peale persuaded Secretary Calhoun that his suggestion was sound, and young Peale was made an assistant to the expedition naturalist, Thomas Say. His duties were defined as the making of drawings of plants, animals, and geological features encountered by the party.

The post of painter went to Samuel Seymour. He was to paint landscapes "distinguished for their grandeur," paint portraits of distinguished Indians and groups of Indians celebrating their festivals or seated in their Councils, and to "illustrate any subject appropriate to his art."

The party, led by Major Stephen H. Long, ranged over a vast area. Two of its members scaled Pikes Peak, and later they ventured down into Spanish Territory.

Long's reports were discouraging. He believed that the lack of wood and water would prevent settlement. On his map he labeled the areas of the Great Plains east of the Rocky Mountains as "The Great American Desert." It was the first time this term had been used, but the name stuck and discouraged attempt at settlement for the next quarter of a century.

Peale and Seymour were the first artists to paint the American West from the vantage point of on-site observation. Seymour was the first to paint Indians on their home ground, the first to paint them sitting in their Councils, and the first to paint a landscape that included the Rocky Mountains.

Peale painted the first picture of an Indian tepee, made the first drawings of a herd of buffalo and sketched many kinds of animals that were not known to the scientific community of the day. Among these were drawings of antelope, mule deer, the prairie chicken, and the grasshopper.

Peale and Seymour's contributions to scientific knowledge

were probably greater than their contributions to art, but even that contribution was significant.

Peter Rindisbacher was the first professional painter to live west of the Mississippi River. Born in Switzerland, he migrated to Canada with his family in 1821. He was then 15 years old. His parents settled along the Red River of the North in a colony established by Lord Thomas Douglas, Fifth Earl of Selkirk, on land donated by the Hudson Bay Company. That grant covered parts of what are now the Canadian Provinces of Manitoba and Saskatchewan and the States of North Dakota and Minnesota.

Peter had shown a talent for drawing and painting by the time he was 6 years old. On the voyage to Canada, he made drawings of Arctic scenes from the deck of the ship, and when they arrived at York Factory on the shores of Hudson Bay, he painted his first scenes of the New World including his first Indians.

The family arrived at their new home, near present day Winnipeg, Canada, on November 1, 1821. The Swiss were ill prepared for life on the frontier, and suffered great hardship over the next few years. Nevertheless, Peter used the time spent in the Red River Settlement to paint many scenes of frontier life and of the customs and manners of the Indians. He was the first artist to illustrate the inside of an Indian tepee, the A-shaped travois drawn by dogs, of Indians west of Hudson Bay using snowshoes and toboggans.

Where other artists idealized the Indian and had portrayed him as the pure primitive, Rindisbacher often showed the seamy side of life on the frontier and portrayed the Indian as something less than the Noble Redman.

The heavy snows of the winter of 1825-26 brought disaster to the Red River colony. Most of the Swiss abandoned the colony.

Peter and his family moved south to the settlement at Gratiots Grove, Wisconsin.

Peter continued to paint and in 1828 he moved to St. Louis where he set up a studio and started to paint professionally. His work shows talent and had he been given the opportunity to mature, he might have become a great artist. At the age of 28 he died.

From Charles Wilson Peale to Peter Rindisbacher, the artists discussed here were the true pioneers of western art. Most were untrained, but Charles Wilson Peale and Charles Bird King had studied under the American expatriot, Benjamin West. Peale was especially effective in getting other artists to recognize the importance of contributing to a pictorial record of the Indian and of early life in the west before the area was spoiled by civilization. He was instrumental in getting artists of stature like George Catlin to look to the West for inspiration.

Before American art could develop a style and a character of its own, it first had to divorce itself from European influences and stylized European themes. The attention western artists gave to a faithful portrayal of the West helped others make the break.

How good were these early western artists? An answer would depend on the sensibilities of each individual asking the question. Most critics concede that the portraits by King and Neagle are very good. The works of Tipton Ramsey Peale and Samuel Seymour show their lack of training, but even in their amateurish depictions there is an occasional spark of inspiration. But the greatest contribution Seymour and Peale made was in painting western subjects on home ground and that inspired greater and more talented men to go there in search of creative stimulation.

No creature so symbolizes the Old West as the American bison, or buffalo. Once buffalo roamed across much of the United States, but the eastern buffalo, also called the woods bison, vanished as the line of settlement moved west. Today, there are only a few well-worn trails to remind us that at one time wild buffalo roamed east of the Mississippi River. West of the river, the story of the buffalo was even more dramatic, as it was the western bison that caught the public imagination in story, song, and legend.

When Lewis and Clark began their journey up the Missouri River in 1804, an estimated 60 million buffalo roamed the western plains. Lewis was impressed by the lack of fear the buffalo held toward man. Despite the fact that

semblance to the Great Plains, the area most people think of as the home of these magnificent animals.

Instead of on a gently rolling, grass-covered plain, the Henry Mountain buffaloes live in steep rugged country stretching from the timberline down to the Colorado River plateau. The area is cut by twisting, jagged arroyos, gullies and canyons. Vegetation is scarce in some parts of the range, but varied and lush in other parts. The water supply ranges from "limited" to "good" in different areas.

The buffaloes usually spend their summers in a remote, roadless section among the highest peaks of the mountain range. Here they graze peacefully on native grasses or loll in the shade

BUFFALO of The Henry Range

the buffalo was a major staple of the Indians' diet, it was possible for a single animal to be born, to grow into an adult and to die of old age without ever having seen a human being.

With the coming of the white man, the slaughter of the great herds began. Buffaloes were killed for meat, hide and bones, and at times, merely to entertain bored easterners who rode west on the train. Today, there remains only one free-roaming herd in the contiguous 48 States. These animals graze on lands administered by the Bureau of Land Management, with no fences, corrals, or other man-made devices to hinder their movement. Their home is in the Henry Mountains of southern Utah, an area that bears little re-

of quaking aspen groves or among stands of pine, chewing their cud and disturbed only by an occasional cowboy or back-packer. But the summer is also the season of the rut, and the tranquility can suddenly be broken by fierce battles between huge bulls competing for the less quarrelsome cows.

As summer turns into fall, the herd starts to migrate to the lower mesas flanking the mountains. Written accounts of buffalo migrations in the Old West tell of flowing masses of animals in herds so vast that their limits were lost beyond the horizon. The Henry Mountain herd has adapted to an environment that is more austere. Here the vegetation is scarce and, rather than move en masse, the herd breaks



Henry Mountain buffalo on summer range. This herd is composed of cows, calves and yearlings. Mature bulls have now left to graze in remote areas higher in the mountains.

up into small groups that scatter over the winter range.

It is here, in the spring, that most of the reddish calves are born. Soon the calves are able to follow their mothers as they experimentally sample the forage provided by their harsh environment.

The Utah Division of Wildlife Resources stages a managed hunt each fall to keep the number of

animals in the herd compatible with the amount of water and forage the range can provide. Hunters must draw for the coveted, once-in-a-lifetime permit with about one chance in two hundred of being successful. The fortunate few, whose names are drawn, must meet the buffalo on its home ground. Here the buffalo knows the terrain and uses the labyrinth of steep canyons and



A lone buffalo yearling walks a remote trail deep in the Henry Mountains.

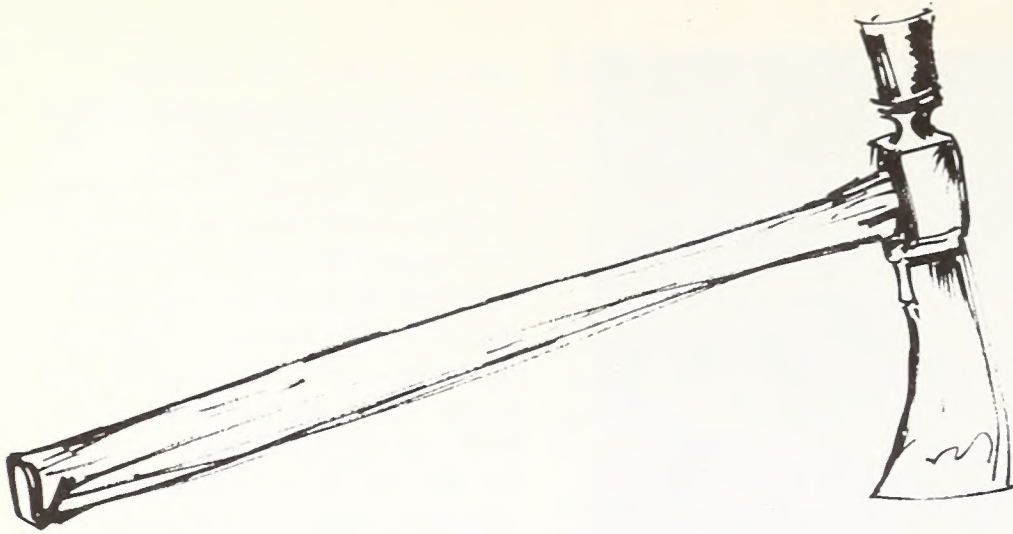
gullies to elude the hunters.

Hunters are among the least of the herd's problems. During fall, winter, and spring the herd must compete with domestic livestock for forage and water. Recently, a stripable layer of coal has been discovered in the area. This and the interest in other minerals has led to a demand for roads to be built into the part of the range the animals have used to escape cowboys, hunters, and recreationists.

Livestock grazing, road building, and mining activities are, to some degree, detrimental to the welfare of the buffalo. Soon BLM, which manages 94 percent of the land used by the herd, will have to decide how much competition the buffaloes can tolerate and how competing interests can best be served within the limits of that toleration.

BLM recognizes that the buffalo in the Henry Mountains is a special management responsibility. The Bureau has accepted that responsibility and will continue to provide the herd with land that can supply the essentials for their continued existence.

A free-roaming herd of buffalo is unique, and many people have visited the Henry Mountains in the hope of seeing, or perhaps photographing, them. If you plan a similar visit, a word of caution: First, roads into the area are extremely primitive and suitable only for 4-wheel drive vehicles. Do not try to go into the area in your family car. Second, you should always remember that these are wild animals, possessed of immense power and unbelievable quickness. When aroused, they can be very dangerous. This is especially true during the summer months when the weather is most favorable for a hike into the mountains. The only safe way to observe or photograph these animals is from a distance with binoculars or telephoto lens.



The Civilized Tribes and Settlement South of the Ohio



All the time the Spanish were encouraging the western settlers to secede from the United States and join Spain, they were also trying to stem the tide of western expansion. Even while Spanish officials wooed the settlers with promises of trade and protection, they encouraged the Indians to attack the settlements and drive the settlers back across the mountains.

The same Estiban Miro who was the architect of one policy was also the mastermind behind the other. He learned, however, that dealing with tribes south of the Ohio River was vastly more complicated than anything the English experienced in dealing with the tribes north of the river.

No single tribe claimed the land which is now central Tennessee and Kentucky. Historically, all tribes had considered this a common hunting ground, and there were four major tribes occupying adjacent lands in a great arc to the south and west. They were the Cherokee, the Creek,

the Choctaw, and the Chicksaw. These have often been called the "civilized tribes" of the "southwest."

(Editor's note: The term "southwest" is relative to the time. Since the Mississippi River formed the western boundary of the United States in the late 1700's, the term "southwest" referred to that area east of the Appalachian Mountains and south of the Ohio River, just as the land around the Great Lakes was called the "northwest." Historians usually refer to the "five civilized tribes," the fifth being the Seminoles of Florida. The Seminoles, however, were more properly an offshoot of the Creeks and did not make a significant impact on the frontier until later.)

The term "civilized" was applied by Europeans in recognition of the fact that these tribes had adopted certain European values and modes of living. Their contacts with Europeans dated back to the expedition of DeSoto. Through long association, these Indians had adopted the European concept of individual ownership of land, and by the time of the American Revolution, many lived in substantial houses on large plantations worked by slaves. They were, on the whole, more affluent, better housed, better educated, and totally more sophisticated than a great majority of the settlers.

The physical features of the Indians were generally pleasing to the European eye. Contemporaries are almost unanimous in describing their women as "beautiful" and their men as "handsome." As a consequence, intermarriage between whites and Indians was frequent, if not common. Over the years, a succession of chiefs among these tribes were either white or had mixed blood.

As soon as James Robertson and his party had settled on the Cumberland River, they fell un-

der attack by war parties from all our tribes. But the wily Robertson set out to pacify the Indians as well as fight them. He had complete success with the Chickasaws, and thereafter the Chickasaws were the most reliable allies the settlers had. His success with the Choctaws was less spectacular, but through the years, the hostility of the Choctaws waned, and they too became allies of the whites. One factor that helped win over the Choctaws was their unending hostility toward the Creeks. Any enemy of the Creeks was seen as a friend of the Choctaws.

Miro had no success in getting the Chickasaws or the Choctaws to wage war against the settlers. But the Cherokees and the Creeks were beginning to feel threatened by the encroachment of white settlers, and with them, Miro was wholly successful.

Dragging Canoe was a principal chief of the Cherokees. He was the same Dragging Canoe who had opposed his father's sale of land to the Transylvania Company, and he had waged war against the whites since the first settlements had been established in Tennessee and Kentucky. He now accepted the Spanish offer of arms and ammunition, not because he trusted or liked the Spanish, but because the Spanish offer fitted into his plans.

The principal chief of the Creeks was Alexander McGillivary. Alexander's grandfather had been the French Commander of Fort Toulouse when the French had controlled the Mississippi Valley. In 1722 the Commander had married an Indian wife from the Wind Clan, and Alexander's mother, the beautiful Sehoy Marchand, had been born of that union.

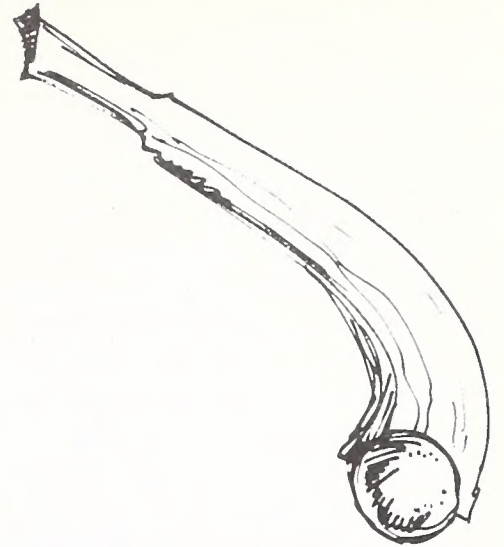
His father was Lochland McGillivary, a Scottish trader who had grown rich in the Indian trade. Lochland courted and won Sehoy, and Alexander was born in 1759.

Alexander was raised in a fine house on his father's plantation. When he was of age, he was sent to the best schools in Charleston. He seemed assured of a brilliant career in the white man's world until the Revolutionary War broke out. Since the McGillivarys were Loyalists, the family property was confiscated by Colonial patriots, and Lochland McGillivary went back to Scotland.

Before leaving America, Lochland McGillivary gave each of his sons a choice of their futures. Alexander's brothers chose careers among the whites and dropped from the pages of history. Alexander alone decided to return to his mother's people. He went back to the family plantation deep in Creek territory and worked for the British for the remainder of the war. When he was 24 years old, the Creeks made him a chief. Throughout his life he was blessed with a keen mind and cursed with a sickly body. When the settlers started to encroach on Creek lands, McGillivary turned to the Spanish for help.

On June 1, 1784, McGillivary and Miro signed the Treaty of Pensacola. Spain agreed to supply the Creeks with arms and ammunition, and the Creeks agreed to harass the settlements.

No one better understood the politics of the times than McGillivary. He knew that, under the Articles of Confederation, the Federal Government was weak, and that a majority of the people who lived east of the mountains had little sympathy for the settlers who had pushed across the mountains, often in defiance of the law. He also knew that Spain was a timid ally who had no real interest in the Indians' cause. He knew that public opinion was fickle and that an all-out campaign against the white settlements could soon arouse sympathy in the East and bring the Government to the rescue of the settlers. It could also cause Spain



to withdraw its support for fear of American reprisals.

He decided on a campaign of limited objectives — quick punishing raids — but to avoid all-out warfare that could easily prove self-defeating. It was a sound decision. During the lifetime of Alexander McGillivray, the Creeks lost almost no land to the whites.

On March 4, 1789, the first Congress to be elected under the new Constitution met in New York City. The House and Senate were organized, and on April 30, George Washington was inaugurated as the first elected President of the United States.

Hoping to reduce the Indian raids on the western settlements, Washington invited McGillivray to New York on a State visit. McGillivray accepted and was given an enthusiastic reception by the people of New York who were astonished to find that an Indian could be so civilized. On August 13, 1790, McGillivray signed the Treaty of New York. In doing so, he recognized the status quo but conceded nothing of importance, including his right to make war against the settlements.

In 1791 James Wilkerson, still in the pay of Spain, was made a Colonel in the United States Army. In this position, he tried to undermine his commander, Mad Anthony Wayne, but not so much to benefit his Spanish employers as out of an innate hostility toward any man who upstaged him. As soon as his new commission was granted, he promptly demanded that Spain increase his pay on the grounds that his promotion had increased the value of his services.

Like swarms of hungry locusts, the settlers continued to pour into unoccupied lands. Rarely did one have a legal right to the land he occupied, and the Territorial Governments were kept busy trying to arrange new treaties with the Indians that would merely accommodate the situation of the moment. No sooner was a

new treaty signed than it was outdated by new waves of settlers.

As the year 1791 ended, Governor Miro was recalled to Spain. Spain was entering into a new alliance with England against the revolutionary government of France, and new policies were needed in North America. Hector De Corondelet was appointed as the new Governor of New Orleans. He soon proved to be an even more aggressive foe of American expansion than Miro had been.

He tried to unite the Indians into a confederation of tribes that would be strong enough to drive out the settlers, and he continued to build intrigue with James Wilkerson.

With more arms and ammunition, the Creeks and the Cherokees stepped up their raids on the settlements. But soon a series of setbacks started to hamper their efforts. The Cherokee chief Dragging Canoe died. Others took his place, but none had his skill or influence.

Still the Indians had some notable success during this period. They captured Ziegler's Station near Nashville. It was one of the rare instances where Indians overran a stockade without the support of artillery.

The tribes were now starting to listen to De Corondelet's appeal for a Confederation. Among the converts was a Cherokee chief named John Watts. Watts argued that the tribes should give up their raids against isolated settlements in favor of a concerted invasion into a heavily populated area. This would, he argued, finally cause the whites to retreat back across the mountains. He was able to gather a force from among the Cherokees and Creeks and set out to capture Nashville.

Watts marched his Indians north and had some initial success before that fatal Indian weakness, the inability to accept discipline and maintain a cohe-

sive force for a sustained campaign, asserted itself. Jealousies broke out among various chiefs, and finally a segment split off to attack Buchanan's Station a few miles south of Nashville.

There were only 15 men defending the fort, but they were all expert marksmen. Protected by the walls of the fort they picked off any Indian who showed himself. Several Indian chiefs were killed and Watts was seriously wounded. The attack caused the Indians to lose all chances of launching a surprise attack on Nashville, and the stubborn resistance of the fort was more than they had bargained for. Unable to capture even a single fort they withdrew and returned to their villages.

The year brought an even more severe blow to Indian hopes. McGillivray died of one of his many illnesses. The Creeks never found his equal. Spanish efforts were further disrupted when war broke out between the Chickasaws and the Creeks.

The settlers welcomed the war, and the Chickasaws were cheered through the streets of Nashville on their way to attack the Creek Villages. From Fort Washington, Anthony Wayne sent guns to the Chickasaws. The war accomplished little, but it was symbolic of the dissension and divisiveness that existed between the tribes and even among factions within a single tribe. Not even McGillivray had ever been able to count on the support of all Creek villages, and without him, no semblance of unity could be achieved. Under the circumstances, time ran against the Indians, and each year the settlers became more firmly entrenched west of the Appalachian Mountains.

Public Land Sales



No public land tracts were scheduled for sale at the time this issue went to press.

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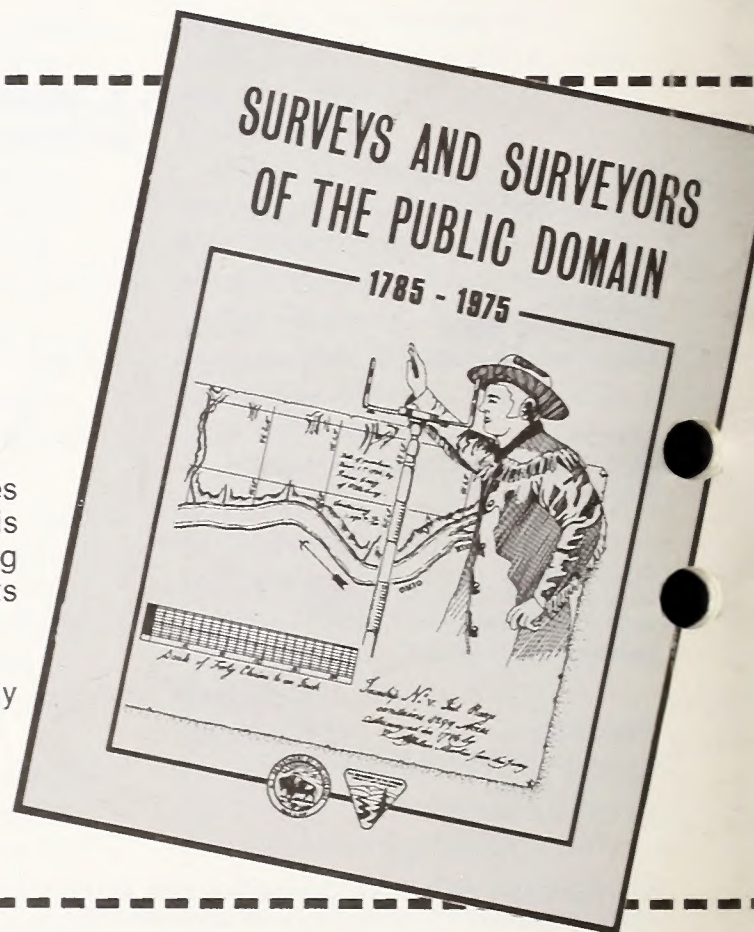
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